

D8 preparing the film-like hot melt adhesive with a film thickness in a range of 50 to 75 micrometers.--

REMARKS

Claims 4-6 and 12-21 are pending herein. By this Amendment, Figures 4A and 4B are corrected by the addition of a legend. The specification is amended to revise language deemed by the Patent Office to be unclear. Claims 12 and 15 are amended to revise language alleged to be unclear. Claims 4-6 and 12-21 are amended to more clearly define the present invention as suggested by the Patent Office. Claims 18-21 are added to recite another embodiment of the present invention as recited in the specification.

No new matter is added.

The attached Appendix includes a marked-up copy of each rewritten paragraph (37 C.F.R. §1.121(b)(1)(iii)) and claim (37 C.F.R. §1.121(c)(1)(ii)).

I. Drawings

The Patent Office alleges that Figures 4A and 4B should be labeled with a legend such as "Prior Art" because allegedly only that which is old is illustrated.

With this Amendment, Applicants submit a Request for Approval of Drawing Corrections in which Figures 4A and 4B are revised to include the legend "Related Art."

Thus, Applicants submit that Figures 4A and 4B fully comply with the requirements of MPEP §608.02(g).

II. Specification

The Patent Office alleged that the specification does not comply with the requirements of 35 U.S.C. §112, first paragraph that the specification be written in "full, clear, concise, and exact terms."

In particular, the Patent Office alleged that the specification contains unclear, inexact and/or verbose terms.

By this Amendment, the specification is amended to revise the allegedly unclear phrases "the air is involved, so that it is not able to use" on page 3, lines 11-12, "by involving the air" on page 3, line 17, "without involving the air between them" on page 5, line 6 and page 11, lines 8-10, and "to prevent involving the air" on page 8, lines 2-3.

In view of the amendments to specification, Applicants submit that the specification fully complies with the requirements of 35 U.S.C. §112, first paragraph.

III. Rejections Under 35 U.S.C. §112

A. 35 U.S.C. §112, First Paragraph

Claims 12 and 15 were rejected by the Patent Office under 35 U.S.C. §112, first paragraph for allegedly containing subject matter which was not described in the specification in such as way as to reasonably convey to one skilled in the relevant art that the Applicants, at the time the application was filed, had possession of the claimed invention. The rejection is respectfully traversed.

Claim 12 was rejected for allegedly reciting the limitation "substantially free of trapped air." By this Amendment, claim 12 is amended to revise "substantially free of trapped air" to "discharge air between the top cover member and the base member." Support for this amendment is found in the specification at, for example, page 11, lines 5-8.

Claim 15 was rejected for allegedly reciting the phrase "bonding the whole surface." By this Amendment, claim 15 is amended to recite "bonding the surface" instead of "bonding the whole surface." Support for the amendment to claim 15 is found in the specification at, for example, page 10, lines 10-12.

In view of the foregoing, Applicants submit that claims 12 and 15 fully comply with the requirements of 35 U.S.C. §112, first paragraph. Reconsideration and withdrawal of the rejection are respectfully requested.

B. 35 U.S.C. §112, Second Paragraph

Claims 4-6 and 12-17 were rejected by the Patent Office under 35 U.S.C. §112, second paragraph for allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. The rejection is respectfully traversed.

The Patent Office alleged that the term "lining" in claims 4 and 14 is unclear and confusing. By this Amendment, the term "lining" is amended as suggested by the Patent Office to recite "headliner" in claims 4-6 and 12-17.

The phrase "web-like hot melt adhesive" was alleged by the Patent Office to be unclear and confusing. By this Amendment, the phrase "web-like hot melt adhesive" in claims 4 and 14-16 is amended to recite "hot melt adhesive in a pattern" as suggested by the Patent Office.

The phrase "the melting step" in claim 6, line 2 was alleged by the Patent Office to lack sufficient antecedent basis. By this Amendment, claim 6 is amended to recite "melting the hot melt adhesive in a pattern" instead of "the melting step."

The Patent Office also rejected claim 12 allegedly for using the indefinite term "substantially." By this Amendment, the term "substantially" is deleted from claim 12.

In view of the foregoing, Applicants submit that claims 4-6 and 12-17 fully comply with the requirements of 35 U.S.C. §112, second paragraph. Reconsideration and withdrawal of the rejection are respectfully requested.

IV. Rejections Under 35 U.S.C. §103(a)

Claims 4-6 and 12-17 were rejected by the Patent Office under 35 U.S.C. §103(a) for allegedly being obvious over U.S. Patent No. 5,647,943 to Kozlowski (hereinafter "Kozlowski") taken with any of U.S. Patent No. 5,399,220 to Winslow (hereinafter "Winslow"), U.S. Patent No. 5,187,123 to Yoshida et al. (hereinafter "Yoshida"), U.S. Patent

No. 3,850,725 to Spielau et al. (hereinafter "Spielau"), U.S. Patent No. 5,346,569 to Simon (hereinafter "Simon") or U.S. Patent No. 4,452,840 to Sato et al. (hereinafter "Sato"). The rejection is respectfully traversed.

As admitted by the Patent Office, Kozlowski fails to teach or suggest using a web-like hot melt adhesive, i.e., a hot melt adhesive in a pattern, as the adhesive layer on the backside of the top cover member as recited in claims 4 and 14-16 of the present application.

None of Winslow, Yoshida, Spielau, Simon or Sato remedy the deficiencies of Kozlowski. Although each of Winslow, Yoshida, Spielau, Simon and Sato describe adhesives that can allow the escape of trapped air, it is novel in the technical field of the present invention to (1) provide for two adhesives in the top cover member and the base member, and (2) use a hot melt adhesive in a pattern, i.e., a web-like pattern, on only the top cover member such that air typically trapped between the top cover member and the base member is discharged through the top cover member while also improving the adhesive strength between the top cover member and the base member.

Instead, in each of the cited references, the trapped air is allowed to escape in a traverse direction. That is, in the cited references, the air escapes at the end and/or edge regions between the two components being bonded together. Air does not escape through either one of the two components in the cited art.

In the present invention, the top cover member has a hot melt adhesive in a pattern such that air escapes through the top cover member and not in the traverse direction as in the cited references.

Further, air is unable to escape through the polyamide film and/or polypropylene film of the base member of the present invention because neither of these films is air permeable. This is also advantageous in that members of the headliner are not deteriorated by the air inside of the vehicle.

Thus, Applicants submit that nowhere in the cited art is it taught or suggested that otherwise trapped air is discharged by passing through only one of the two members being bonded together. The cited art instead relied only upon expelling otherwise trapped air through a gap between the two components being bonded together.

Nothing in the cited art would have led one of ordinary skill in the art to use a hot melt adhesive in a pattern, i.e., a web-like pattern, for the manufacture of a headliner for a vehicle such that otherwise trapped air is discharged through a component of the headliner.

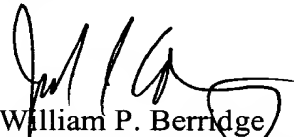
For the foregoing reasons, Applicants submit that none of Kozlowski, Winslow, Yoshida, Spielau, Simon and Sato, whether taken singly or in combination, teach or suggest the present invention. Reconsideration and withdrawal of the rejection are respectfully requested.

V. Conclusion

In view of the foregoing amendments and remarks, Applicants submit that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 4-6 and 12-21 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number set forth below.

Respectfully submitted,

  
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Attachments:

Appendix

Request for Approval of Drawing Corrections

Date: September 25, 2002

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## APPENDIX

## Changes to Specification:

Page 3, lines 8-12:

For improving the adhesive strength, the hot melt film is disposed on the back of the top member cover 30. However, when the multi-layered base member 20 and the top member cover 30 are bonded, ~~the air is involved, so that it is not able to use~~ air is trapped between the base member 20 and the top cover member 30. Therefore, the bonded product is not useable as a formed lining for a vehicle.

Page 3, lines 14-20:

The present invention was developed in view of the above-described problems. Therefore, an object of the present invention is to provide a formed lining for a vehicle, having high adhesive strength between a base member and a top cover member and no adhesion failure ~~by involving the air~~ caused by trapped air between them. Another object of the invention is to provide a method for manufacturing the same.

Page 5, lines 2-6:

The top cover member has the web-like hot melt adhesive, thereby the air between the top cover member and the base member is easily discharged through the top cover member. Accordingly, it is possible to bond ~~and form~~ the top cover member and the base member ~~without involving the air between them~~ so as to discharge the air between the top cover member and the base member and form a formed lining for a vehicle.

Page 7, line 23 to page 8, line 3:

The hot melt web 3 melts by the heat of the heated multi-layered base member 20 to bond the top cover member 10 and the multi-layered base member 20. At this time, because the hot melt web 3 has air permeability, the air between the top cover member 10 and the multi-layered base member 20 is discharged through the hot melt web 3 to prevent ~~involving~~

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the air from being trapped between the top cover member 10 and the multi-layered base member 20.

Page 11, lines 5-12:

The web-like hot melt adhesive is disposed on the back of the top cover member, thereby the air between the top cover member and the base member is easily discharged through the top cover member. Accordingly, it is possible to bond ~~and form~~ the top cover member and the multi-layered base member ~~without involving the air between them so as to~~ discharge the air between the top cover member and the multi-layered base member and form a formed lining for a vehicle. Therefore, it is possible to bond and form efficiently the top cover member and the multi-layered base member.

Changes to Claims:

Claims 4-6 and 12-17 are added.

Claims 18-21 are added.

The following is a marked-up version of the amended claims:

4. (Twice Amended) A method for manufacturing a formed ~~lining~~ headliner for a vehicle, comprising:

preparing a top cover member comprising a ~~web-like~~ hot melt adhesive in a pattern previously laminated on a back thereof, and a plate-like base member comprising a thermoplastic resin and a film-like hot melt adhesive previously laminated on a front of the base member;

heating the base member;

setting the top cover member and the heated base member in a forming die;

melting the ~~web-like~~ hot melt adhesive in a pattern of the top cover member by heat of the base member; and



forming the top cover member and the base member at the same time that the top cover member and the base member are bonded.

5. (Amended) The method for manufacturing a formed ~~lining~~ headliner for a vehicle as claimed in claim 4, wherein the base member is set in the forming die in a state that the base member softens and that the film-like hot melt adhesive melts.

6. (Twice Amended) The method for manufacturing a formed ~~lining~~ headliner for a vehicle as claimed in claim 4, wherein ~~the melting step~~ the hot melt adhesive in a pattern is performed during the forming.

12. (Amended) The method for manufacturing a formed ~~lining~~ headliner for a vehicle as claimed in claim 4, wherein the top cover member and the base member are bonded to ~~be substantially free of trapped air~~ discharge air between the top cover member and the base member.

13. (Amended) The method for manufacturing a formed ~~lining~~ headliner for a vehicle as claimed in claim 4, wherein the top cover member and the base member are bonded by cold press forming.

14. (Amended) A method for manufacturing a formed ~~lining~~ headliner for a vehicle comprising:

laminating a ~~web-like~~ hot melt adhesive in a pattern on a back of a top cover member;

laminating a film-like hot melt adhesive on a front of a base member; and

bonding the top cover member having the laminated ~~web-like~~ hot melt adhesive in a pattern to the base member having the hot melt adhesive.

15. (Amended) The method for manufacturing a formed ~~lining~~ headliner for a vehicle as claimed in claim 14, wherein the bonding is performed by bonding the ~~whole~~ surface of the ~~web-like~~ hot melt adhesive in a pattern to the film-like melt adhesive.

16. (Amended) The method for manufacturing a formed ~~lining~~ headliner for a vehicle as claimed in claim 14, further comprising:

melting the film-like hot melt adhesive, and softening the base member by heating the base member; and

melting the ~~web-like~~ hot melt adhesive in a pattern by heat of the base member.

17. (Amended) The method for manufacturing a formed ~~lining~~ headliner for a vehicle as claimed in claim 14, further comprising:

preparing the film-like hot melt adhesive with a film thickness in the range of 50 to 75 micrometers.